

appeared surprisingly small by comparison with the two Sharp-tailed Sandpipers present, but had the very conspicuous gorget, fairly uniform brown streaked colouring above (without rufous on crown), and distinctive call of the American Pectoral Sandpiper.

CURLEW SANDPIPER — One seen on 2/3/63.

RED-NECKED STINT — One on 3/11/62 and one on 12/1/63.

PIED STILT — Pattern similar to previous years; highest count 204 on 15/6/63.

ARCTIC SKUA — 7 just offshore on 7/3/63.

BLACK-BACKED GULL — Usually about 100 in the estuary, and a few breed in rather isolated nests in the less accessible areas. In December 1962 a nest was constructed and vigorously defended just above the normal high tide mark on the exposed flats. Five pairs bred on the open beach three miles south of Manawatu Heads.

RED-BILLED & BLACK-BILLED GULLS — On 12/1/63 there were 35 Black-billed Gulls but only 10 Red-billed Gulls. Usually the latter predominate.

BLACK-FRONTED TERN — 3 on 6/3/63.

CASPIAN TERN — Maximum 35 on 22/12/62. No breeding colonies have yet been found in the district.

LITTLE TERN — One on 3/11/62, in typical eclipse plumage of *S. albifrons*. The first recorded at Manawatu Estuary, though one was seen at Rangitikei Estuary in 1960-61.

WHITE-FRONTED TERN — Common on this coast, 1500 within about three miles on 7/3/63.

— I.G.A., M.J.I.

SHORT NOTES

COOT BEHAVIOUR AT OKAREKA

I have been able to make some observations on the habits of the Australian Coot (*Fulica atra*) on Lake Okareka, Rotorua. These birds were first identified by Mr. Blomfield and Mr. Spens-Black in the spring of 1962. Since then, the original pair have been producing two broods, one of two and one of four, giving a total of eight birds altogether. About the end of July this year three disappeared, leaving five; and, so far, I have heard no mention of them on any of the other lakes about Rotorua.

On Lake Okareka itself these birds seem to have confined themselves to a reed-bed on the south-eastern side of the main peninsula. The reed-bed is about a hundred and fifty yards long by about twenty-five yards wide, broken here and there by strips of open water. Here the Coots spend their time with the Pukekos and a small flock of Scaup (*A. novaeseelandiae*), which they treat with a certain amount of contempt as they can both outswim and outdive them. An unsuspecting Scaup is frequently attacked from behind, if it should happen to be sitting in the Coot's line of advance; a flock of them is sometimes taken unawares when a Coot dives from the rear and suddenly reappears in their midst with a beakful of weed.

With their rich black colouring on the upper parts, shading into grey below, Coots look very handsome birds as they move through the water. At a distance when seen from the rear they could be mistaken for Scaup, but when seen from the front the conspicuous white shield above the bill, which shows up plainly over a distance of several hundred yards, leaves no doubt as to the bird's identity.

They obtain most of their food from the lake bed, often leaping from the water like a trout when they dive. They reappear on the surface dragging a bill-ful of water weed, which they shake up and down vigorously for several seconds. The portion that is held in the bill is generally swallowed; the rest is dropped back into the water, and whatever floats loose is quickly picked up off the surface. When they are swimming they may often be observed pecking at insects and bits of vegetation lying about on the water.

As swimmers I have seen no bird their equal; they can out-distance a Scaup with little effort. On one or two occasion I have seen them travel so fast through the water, that they almost swamped themselves with the wave of water that builds up in front of them. As they swim they bob their heads up and down, which seems to give them extra momentum, much like a runner moving his arms.

They seldom bother to fly, except when quarrelling with another member of their species. Then by dint of much flapping of their wings, they get themselves off the water, leaving their legs trailing behind. Their flight is generally not long sustained.

They have a screeching cry, which is not quite so ear-splitting as that of a Pukeko, but it is often kept up for a much longer period. I cannot say that I have found them to be as noisy as reputed. Their alarm note very much resembles the noise made by a cork when it is drawn from a bottle.

I have had no opportunity to observe their nesting. So far this season — it is now early October — the birds that are left do not seem to be showing any inclination to nest, as they are still keeping closely together in the same area.

— HAMISH LYALL

[On 27/10/63 a pair was feeding a brood of seven downy chicks. — Ed.]

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RED-CROWNED PARAKEET IN EXOTIC FOREST

On 22/2/62, Mr. C. D. Blomfield saw a Red-crowned Parakeet (*C. novaeseelandiae*) in the centre of the 30,000 acre block of conifer forest, consisting mostly of Monterey Pine (*P. radiata*) at Mihi, about 20 miles south of Rotorua. He was able to watch the bird at close quarters, as it fed among the cones. This may be the first positive record of the presence of this species in a man-made forest.

This occurrence prompted me to investigate the potentiality of the exotic conifer forest in relation to the economy of seed-eating birds. For the following information I am greatly indebted to Mr. A. J. Buchanan, Officer-in-charge, Training Centre, N.Z. Forest Service, Whakarewarewa. Mr. Buchanan writes:

"The influence of birds on the forest is a scientific study on its own. Only the more advanced forestry countries (Germany, Sweden, France, Czechoslovakia and, now recently, Britain) have made a serious study of the problem. As we in New Zealand become more sophisticated, more attention will have to be given to this facet of forestry. The following species are the main plantings in exotic forests and supply the most edible seeds for birds:—

1. Monterey Pine (*Pinus radiata*). From December to February, during the hottest days of the year, the seeds fall naturally from the cones of standing trees. The felled tree cones open any time of the